

Fig. 1A

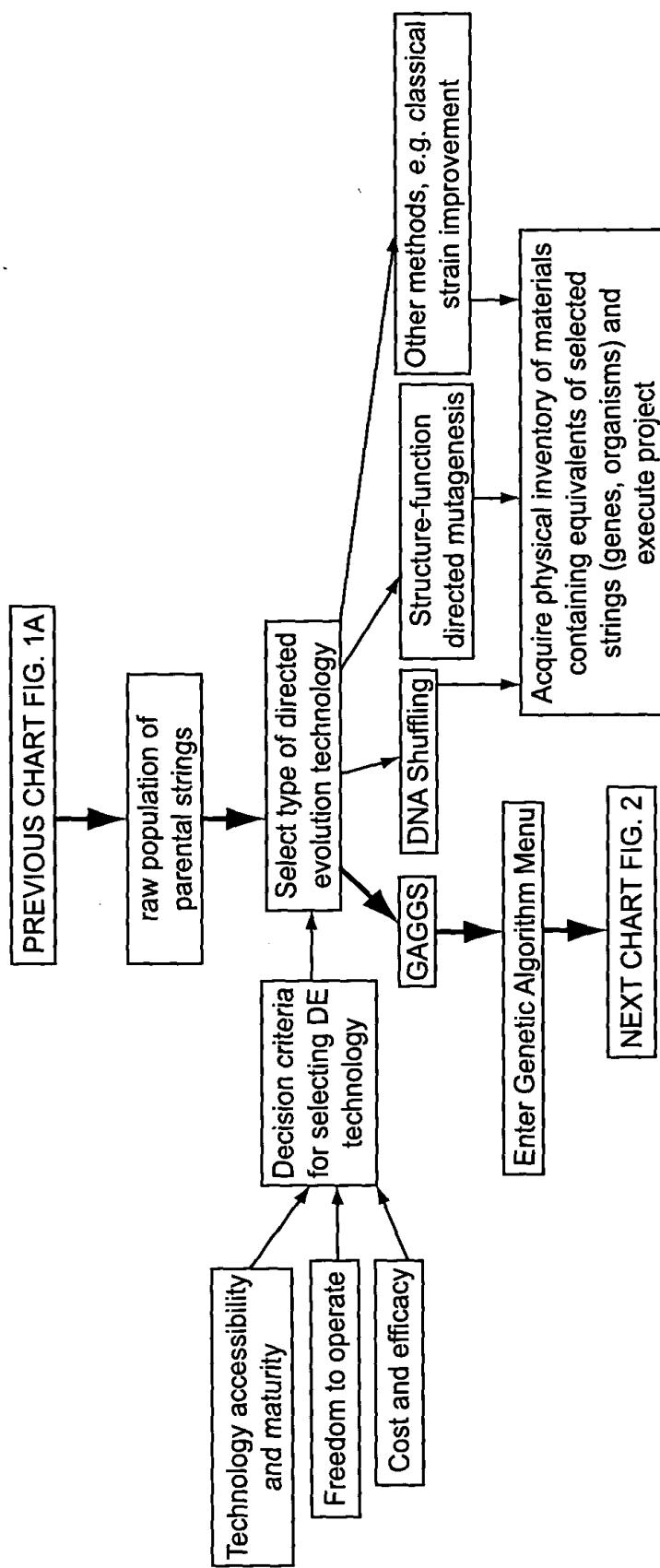


Fig. 1B

| | |
|-----------|----------------|
| APPROVED | O G. FIG. |
| BY | CLASS SUBCLASS |
| DRAFTSMAN | |

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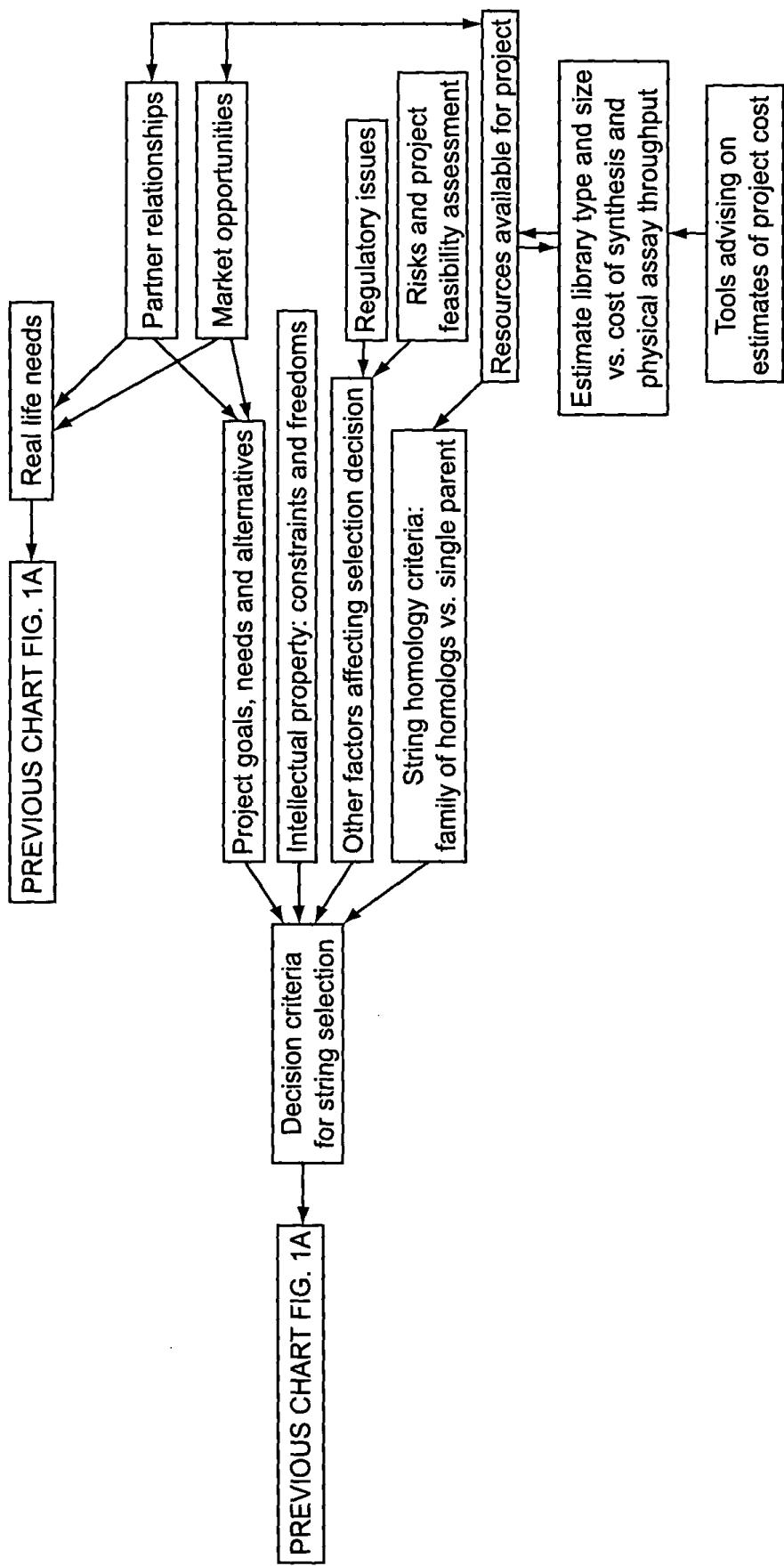
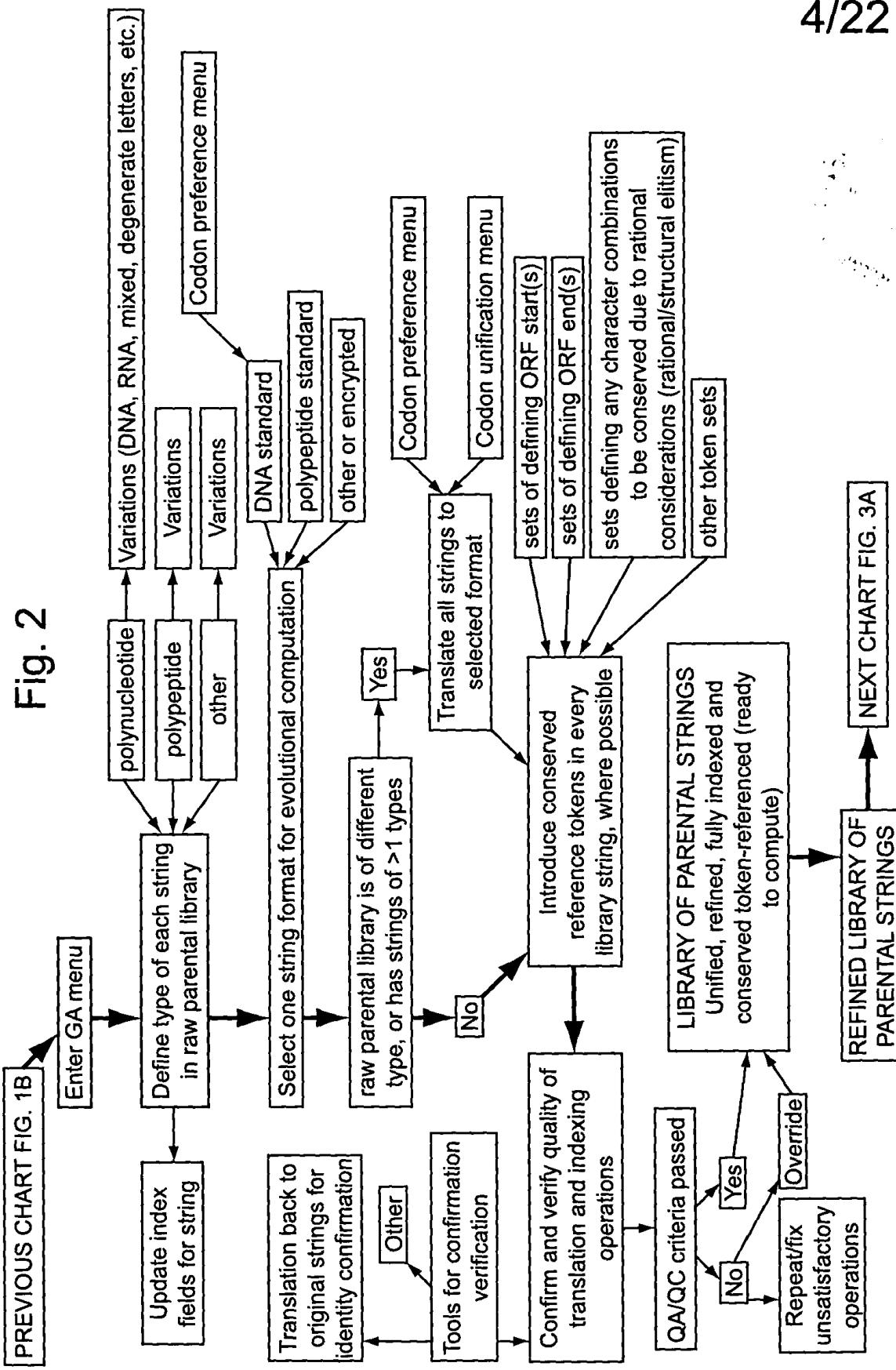


Fig. 1C

PREVIOUS CHART FIG. 1B



PREVIOUS CHART FIG. 2

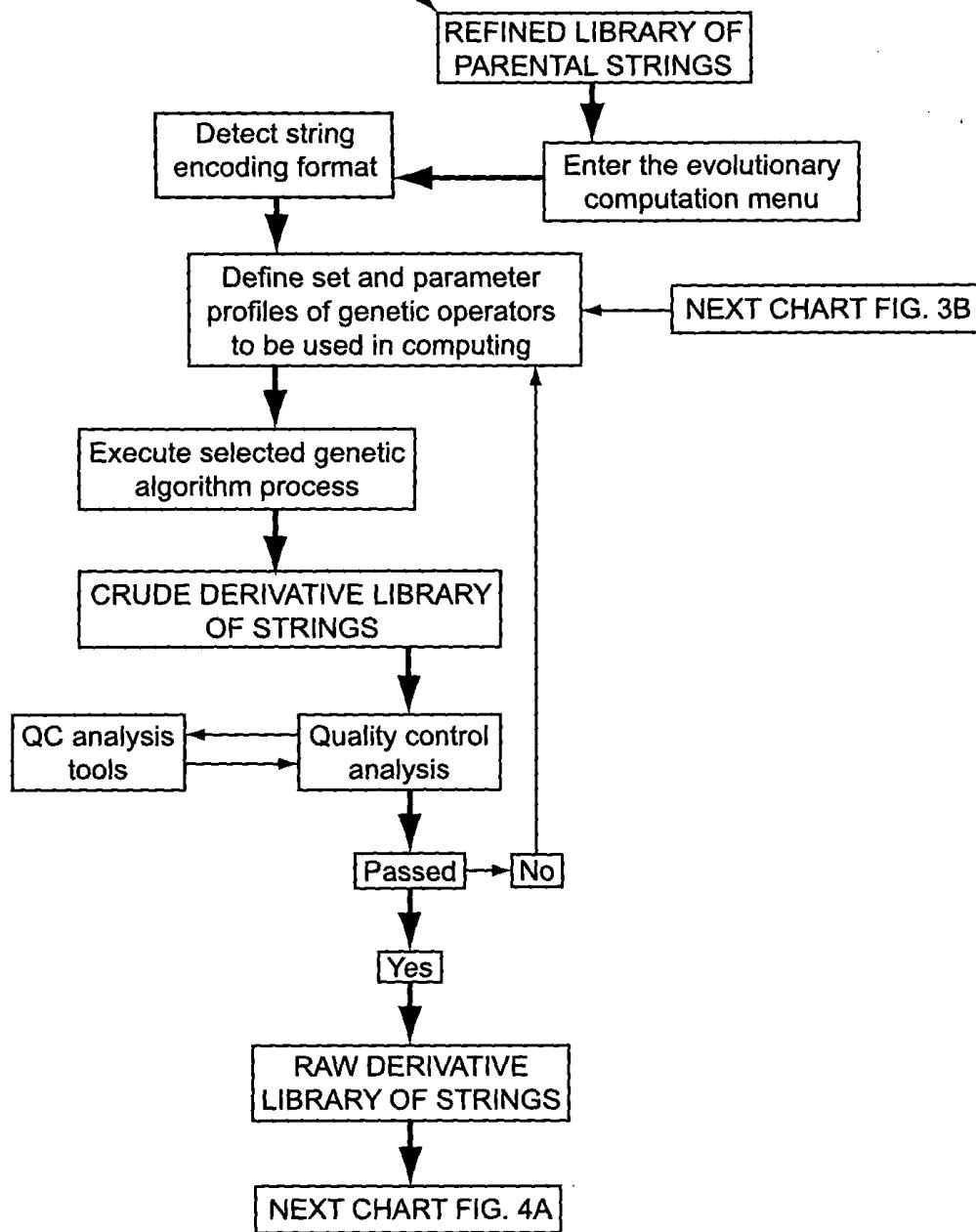


Fig. 3A

| | |
|-----------|----------------|
| APPROVED | O. G. FIG. |
| BY | CLASS SUBCLASS |
| DRAFTSMAN | |

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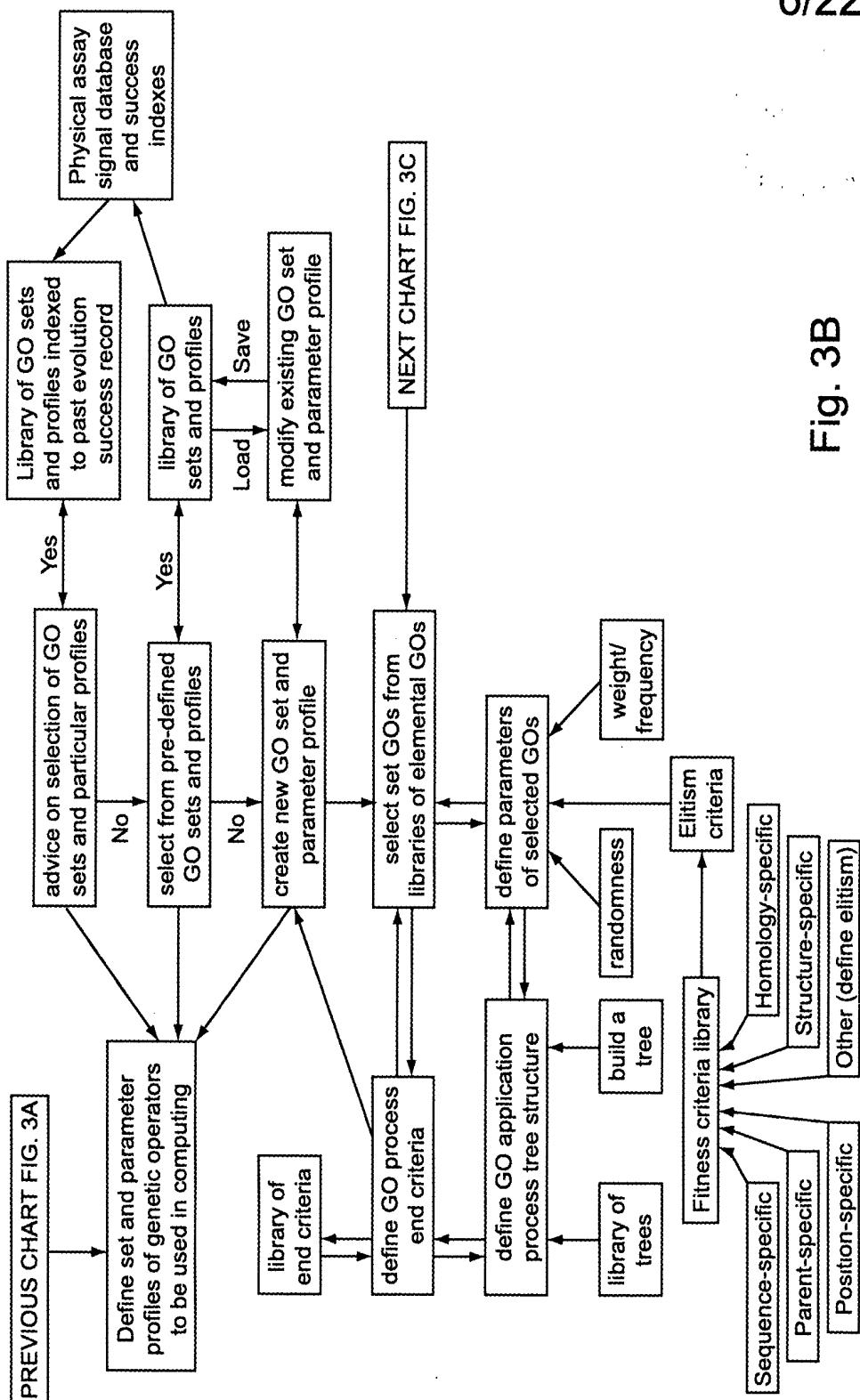
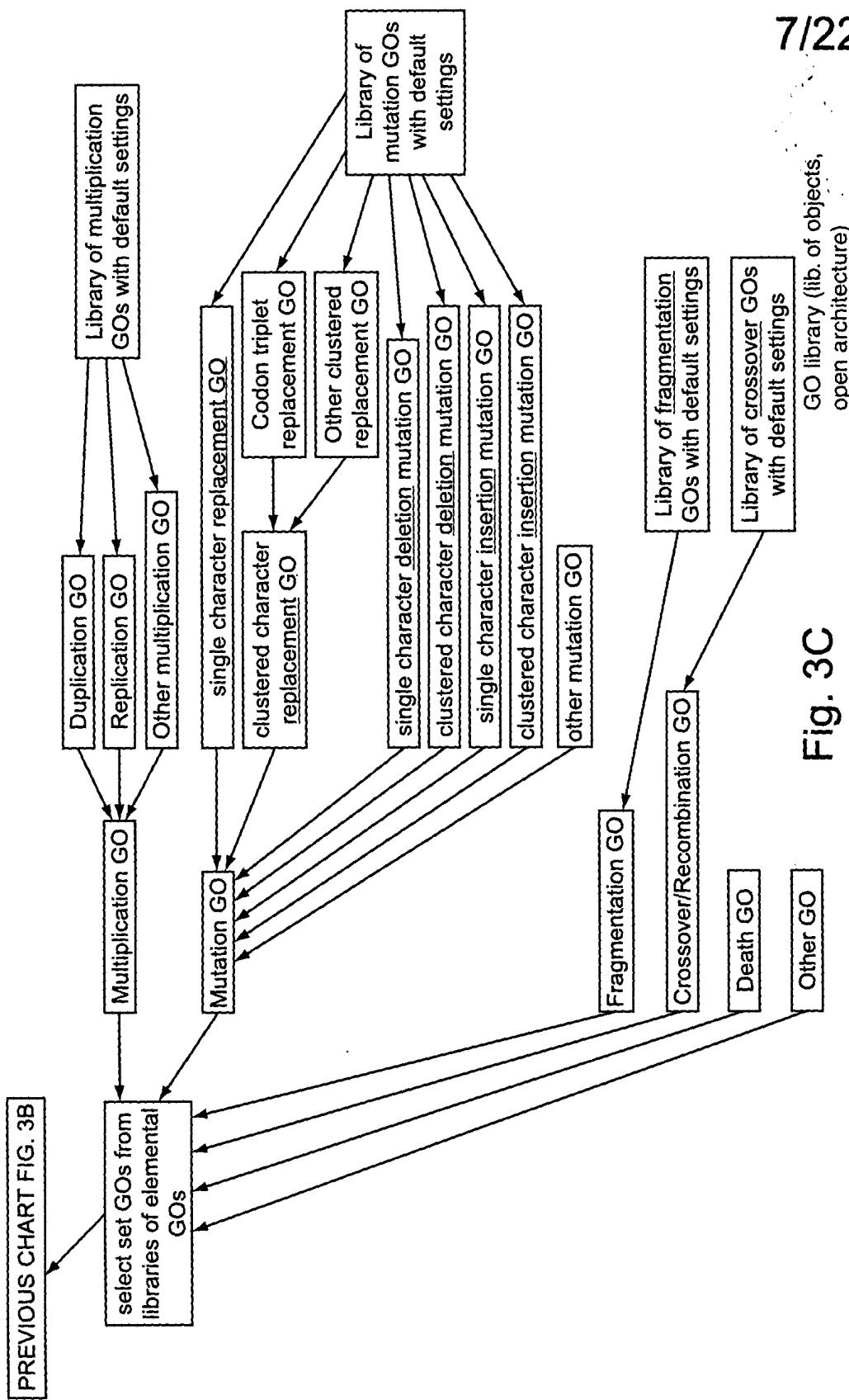


Fig. 3B



| | |
|-----------|----------------|
| APPROVED | O. G. FIG |
| BY | CLASS SUBCLASS |
| DRAFTSMAN | |

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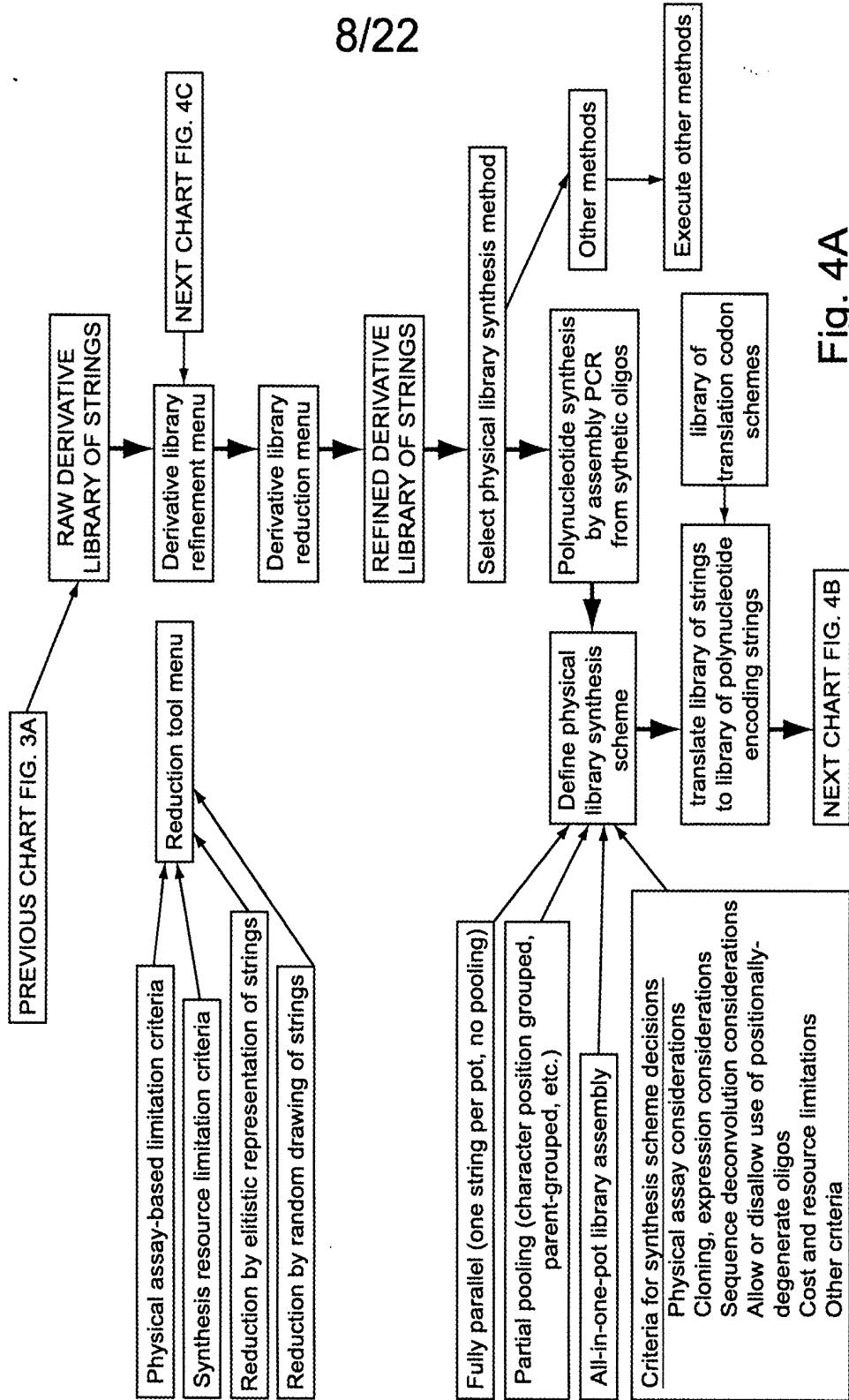


Fig. 4A

| | |
|-----------|----------------|
| APPROVED | O. G. FIG. |
| BY | CLASS SUBCLASS |
| DRAFTSMAN | |

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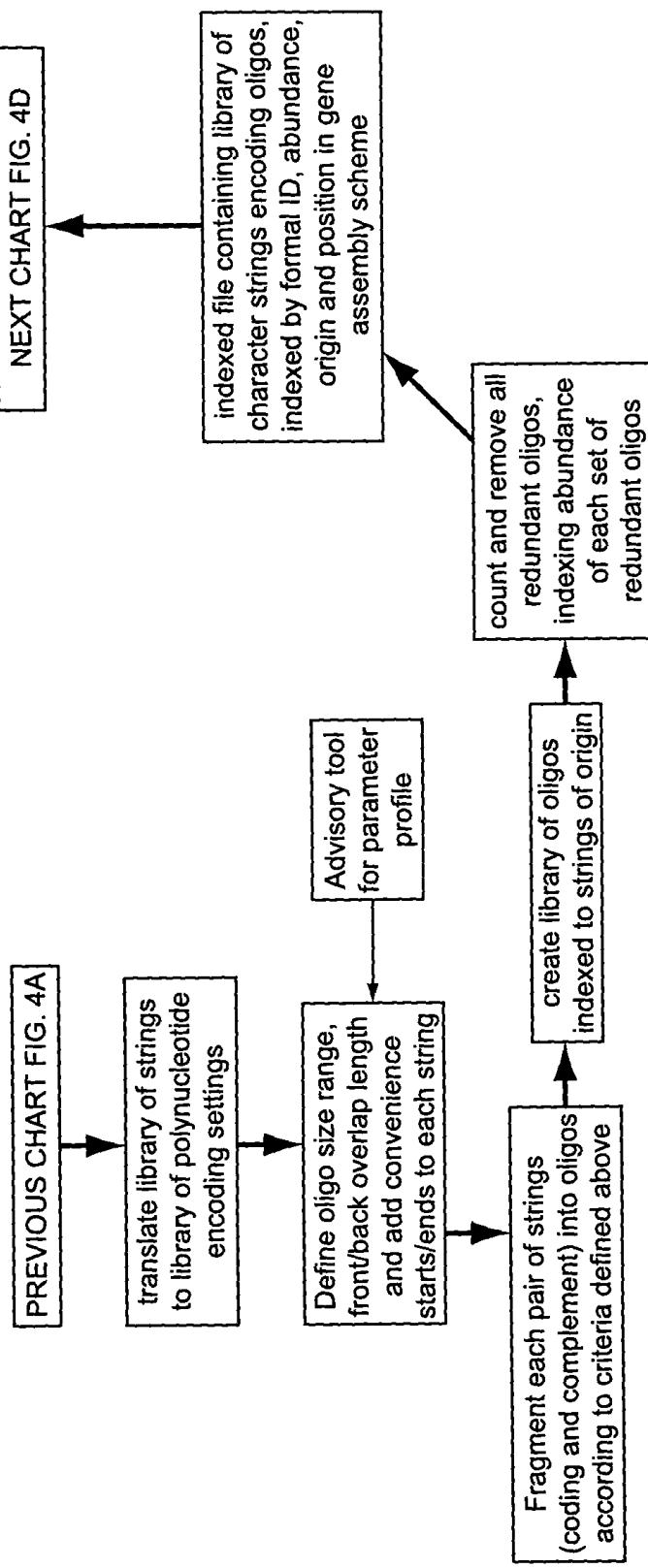


Fig. 4B

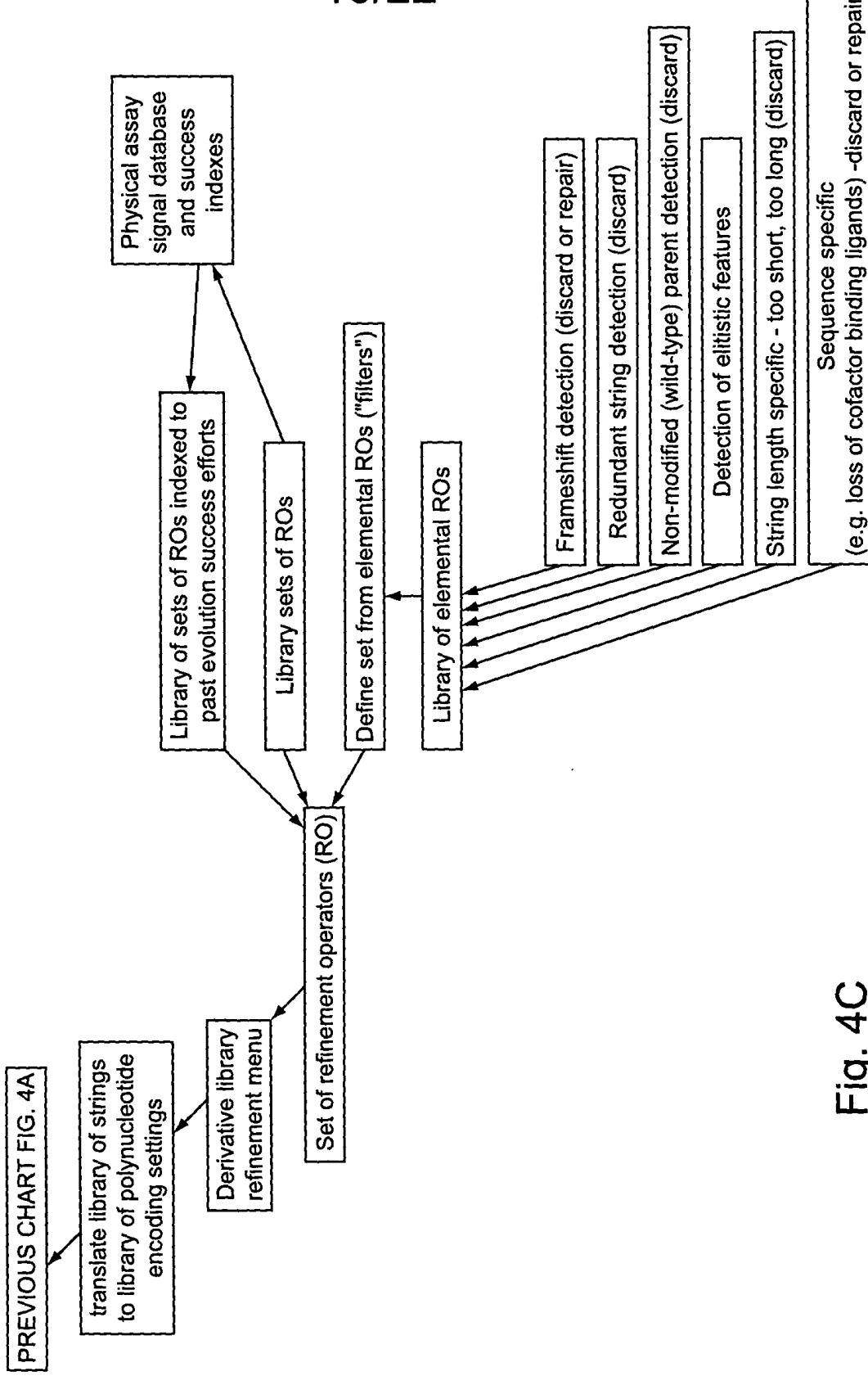


Fig. 4C

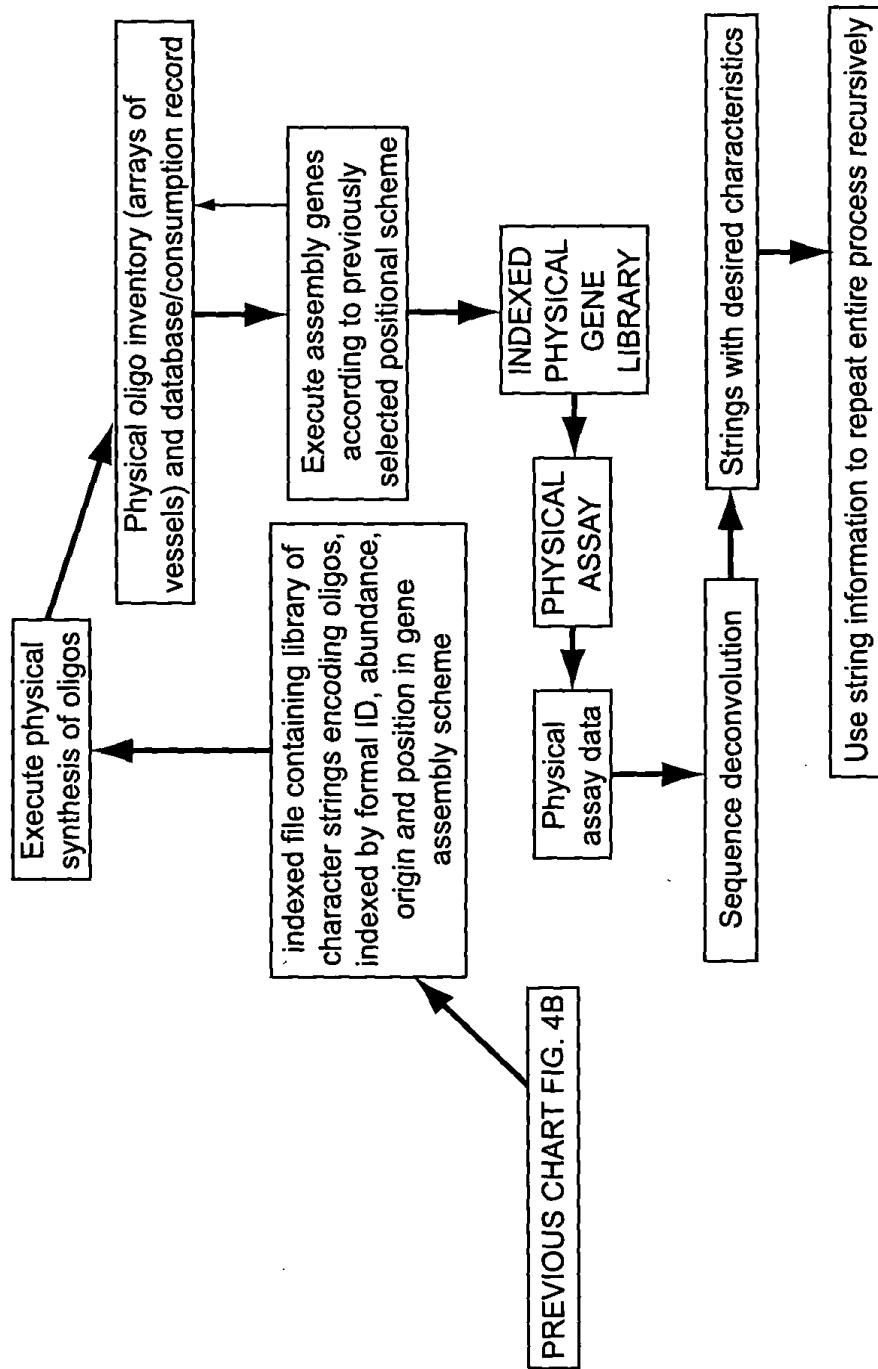


Fig. 4D

| | |
|-----------|----------------|
| APPROVED | O G. FIG. |
| BY | CLASS SUBCLASS |
| DRAFTSMAN | |

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| Percent Similarity | | | | | | | | |
|--------------------|------|------|------|------|------|------|------|---|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | |
| 1 | | 62.1 | 81.4 | 57.6 | 81.8 | 56.1 | 59.1 | 1 |
| 2 | 50.5 | | 61.0 | 54.9 | 59.5 | 58.2 | 60.8 | 2 |
| 3 | 21.0 | 52.0 | | 54.6 | 78.4 | 50.6 | 53.2 | 3 |
| 4 | 54.4 | 63.3 | 62.3 | | 52.0 | 64.6 | 67.9 | 4 |
| 5 | 20.5 | 54.9 | 25.1 | 65.6 | | 53.9 | 56.5 | 5 |
| 6 | 58.6 | 56.6 | 72.2 | 44.2 | 63.4 | | 94.9 | 6 |
| 7 | 52.5 | 51.4 | 66.0 | 38.5 | 57.8 | 4.9 | | 7 |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | |

Fig. 5A

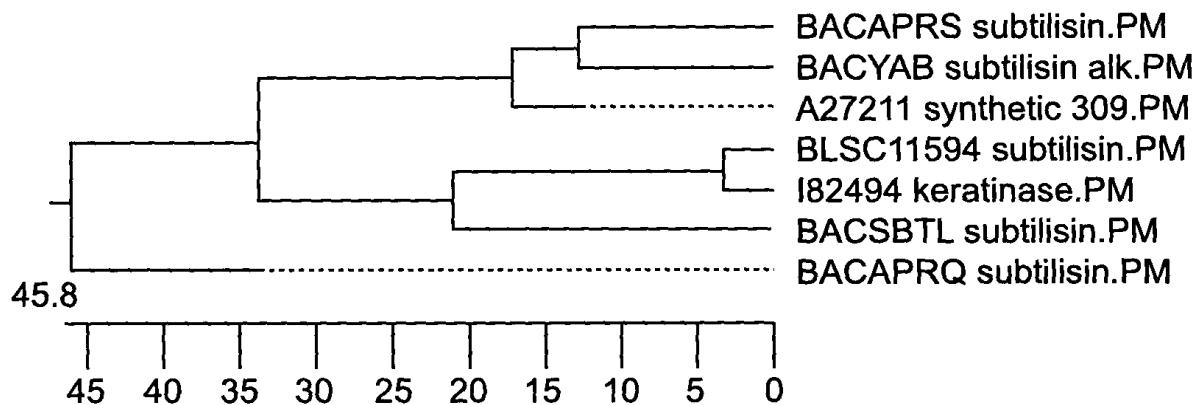


Fig. 5B

| | |
|-----------|----------------|
| APPROVED | O. G. FIG. |
| BY | CLASS SUBCLASS |
| DRAFTSMAN | |

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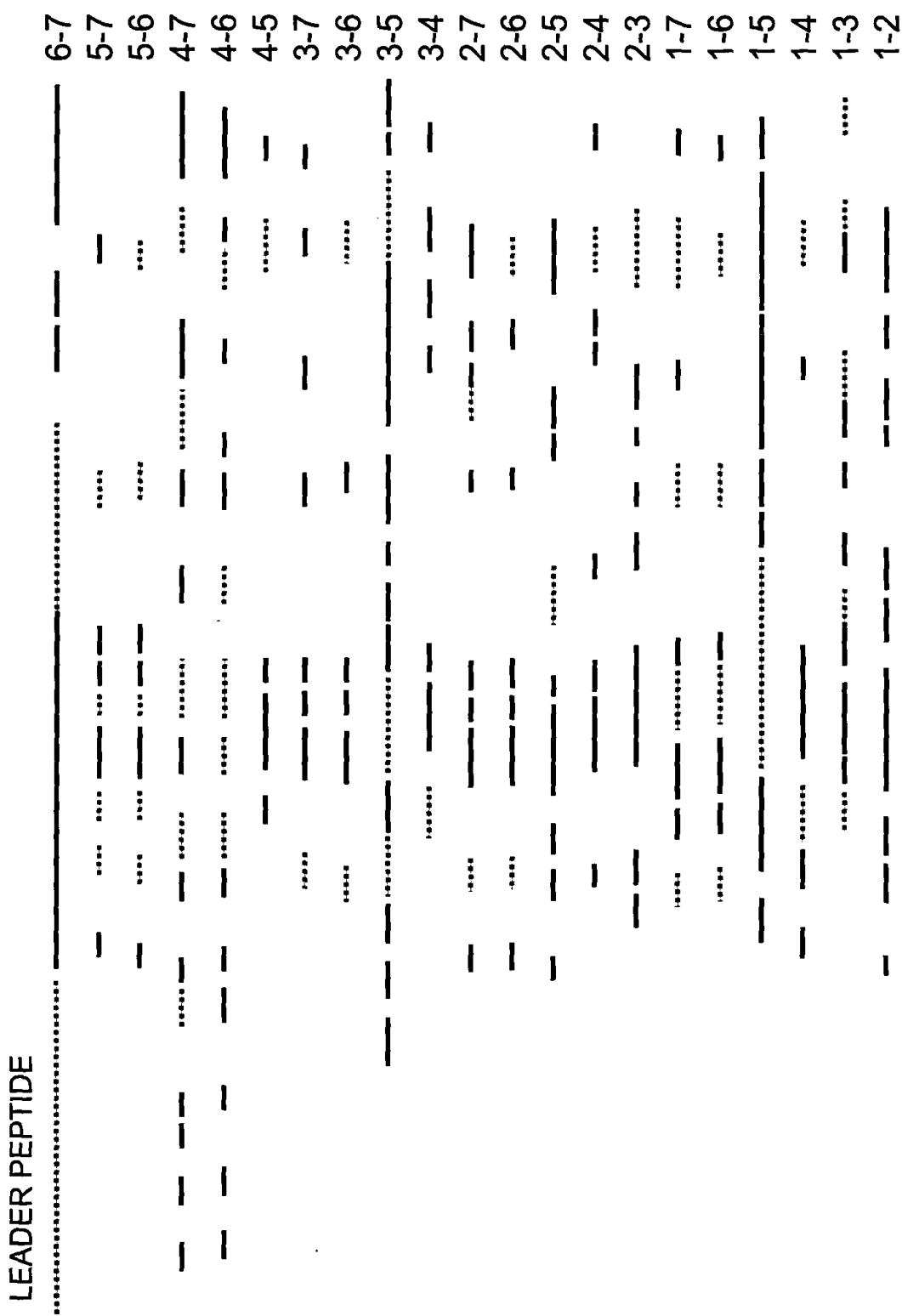


Fig. 6

| | |
|-----------|----------------|
| APPROVED | O. G. FIG. |
| BY | CLASS SUBCLASS |
| DRAFTSMAN | |

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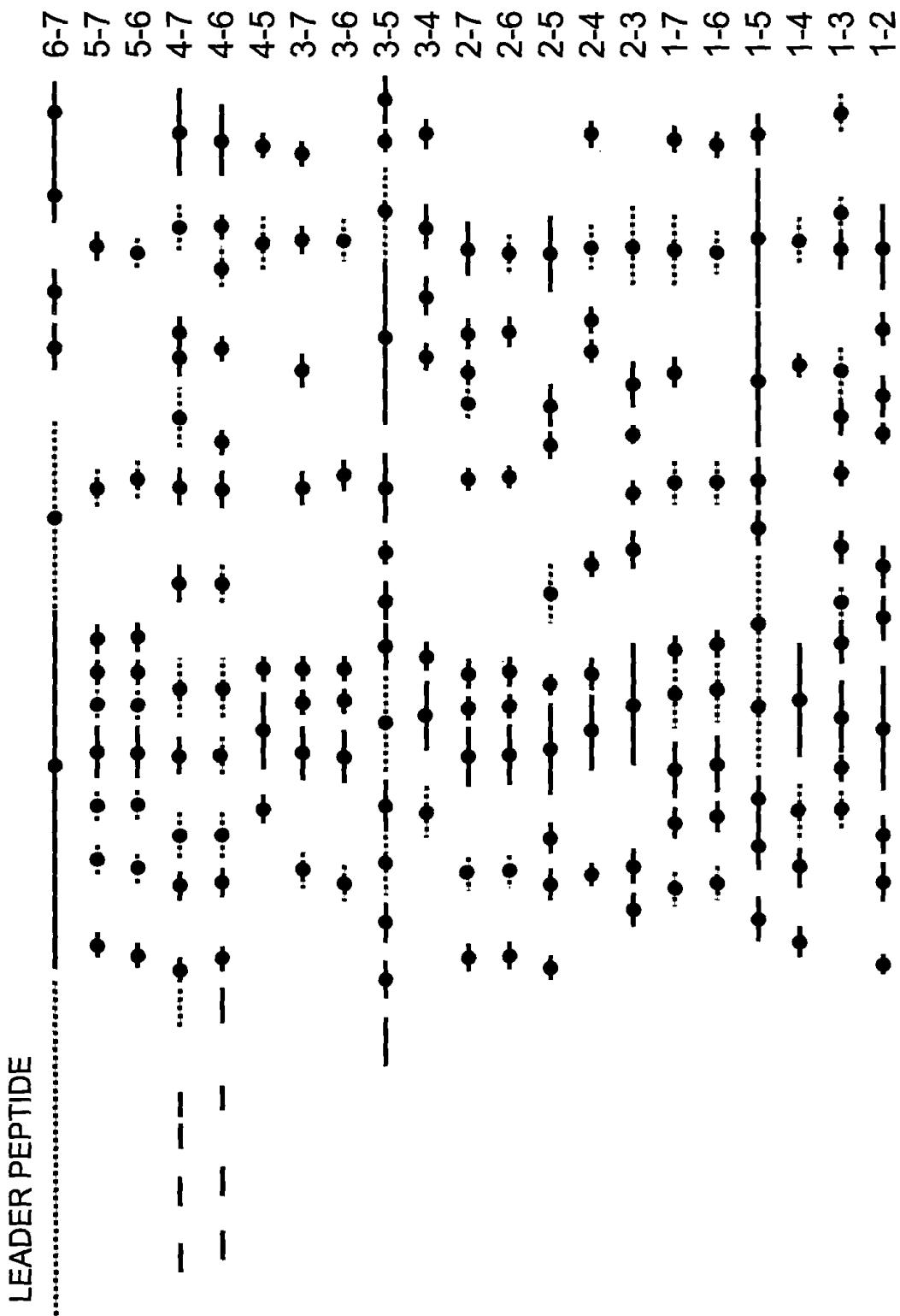


Fig. 7

| | | |
|-----------|-------|----------|
| APPROVED | O | G. FIG. |
| BY | CLASS | SUBCLASS |
| DRAFTSMAN | | |

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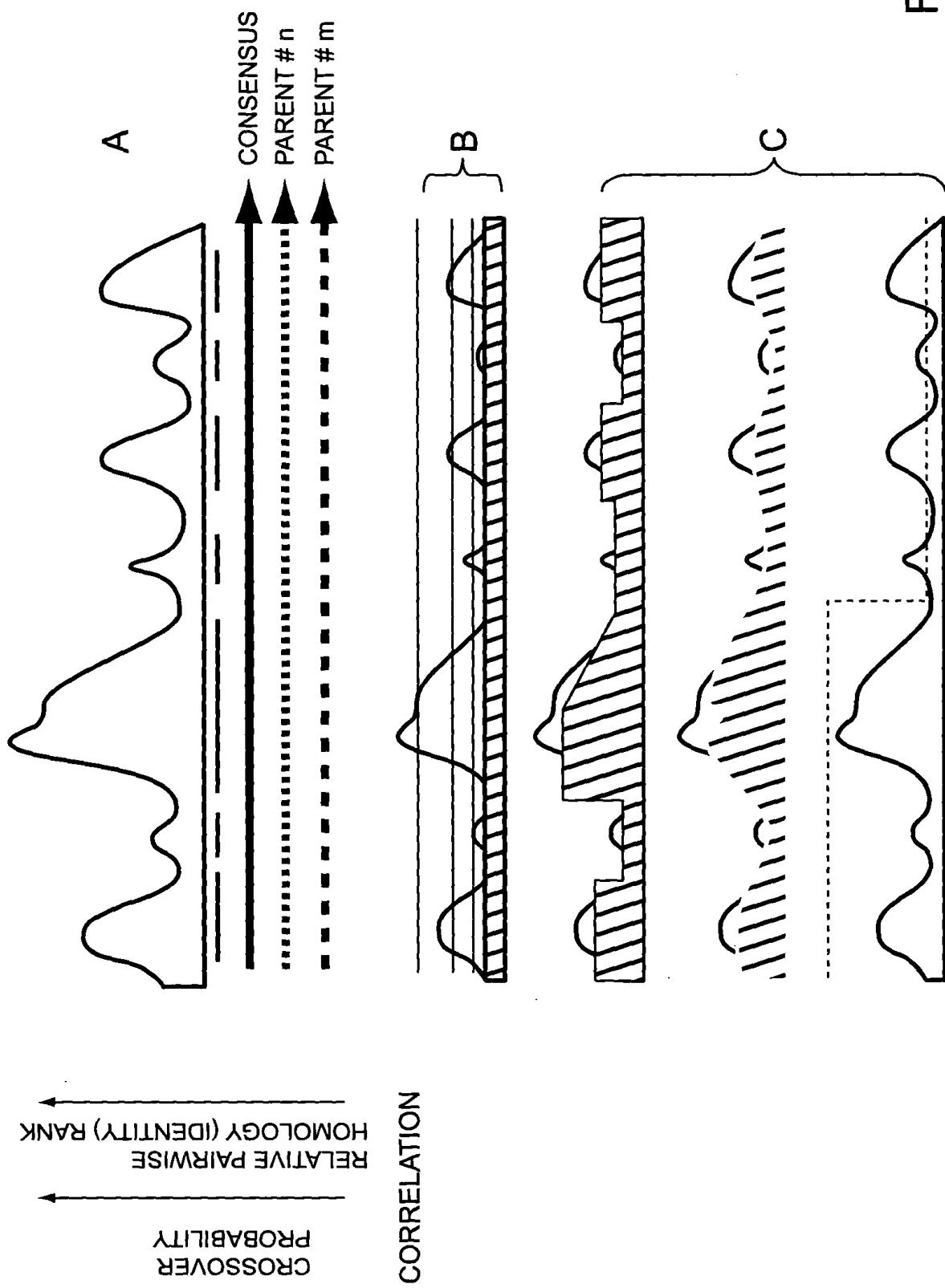


Fig. 8

| | |
|-----------|------------|
| APPROVED | O. G. FIG. |
| BY | CLASS |
| DRAFTSMAN | SUBCLASS |

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Introducing indexed crossover points marker into sequence of each of the parents

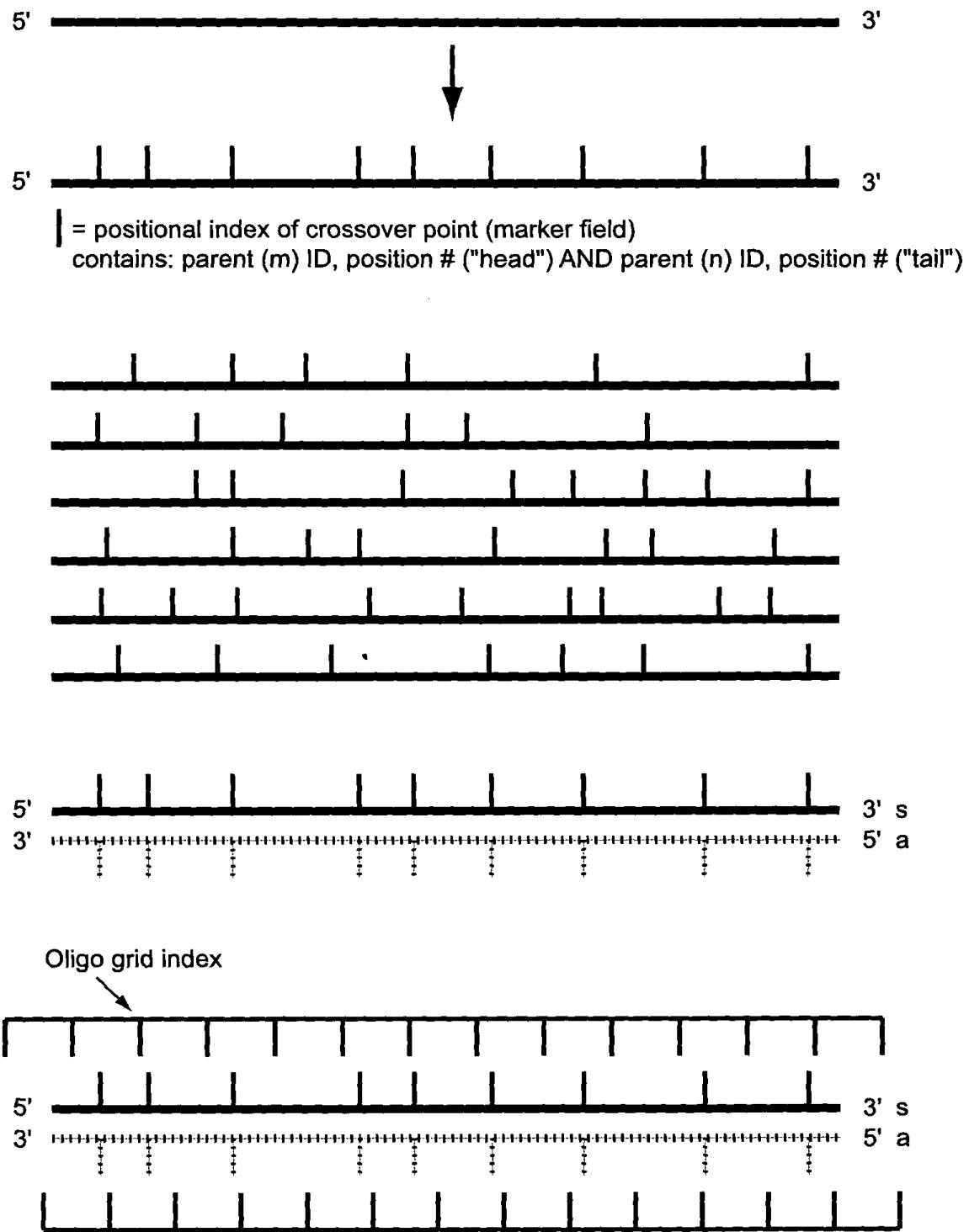


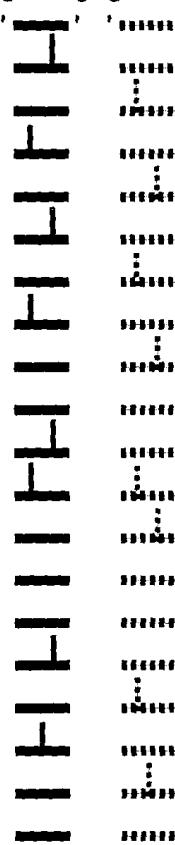
Fig. 9

| | |
|-----------|----------------|
| APPROVED | O. G. FIG. |
| BY | CLASS SUBCLASS |
| DRAFTSMAN | |

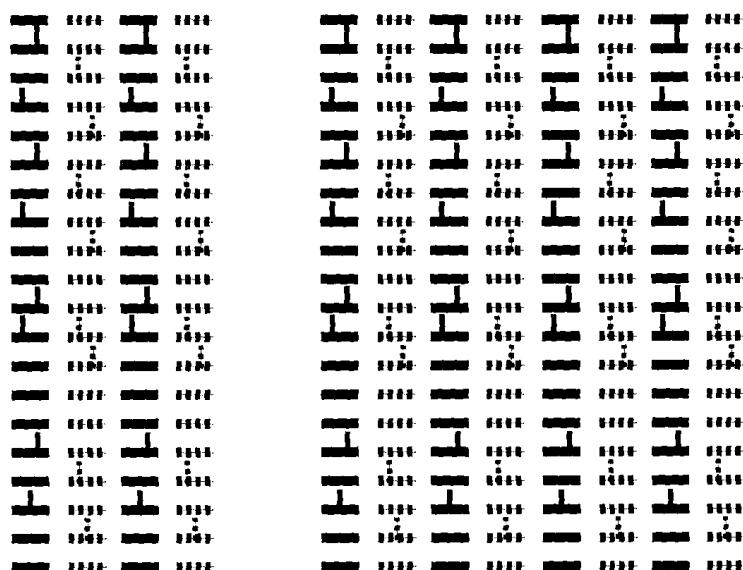
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SET OF OLIGOS
TO ASSEMBLE A PARENT

5 3 5 3



COMPLETE INVENTORY OF
OLIGO SEQUENCES
(TO ASSEMBLE ALL PARENTS)



FIND ALL PAIRS OF PAIRS OF
OLIGO SEQUENCES WITH
MATCHING PAIRWISE
CROSSOVER INDEXES



SUB-INVVENTORY OF OLIGOS WITH
CROSSOVER MARKERS

Fig. 10

| | |
|-----------|----------------|
| APPROVED | O. G. FIG. |
| BY | CLASS SUBCLASS |
| DRAFTSMAN | |

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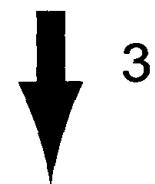
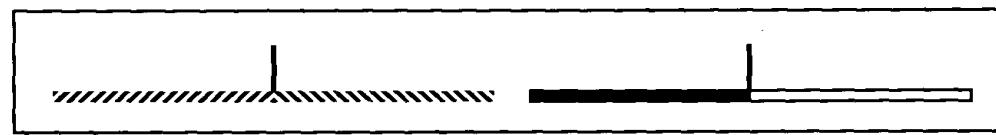
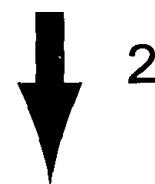
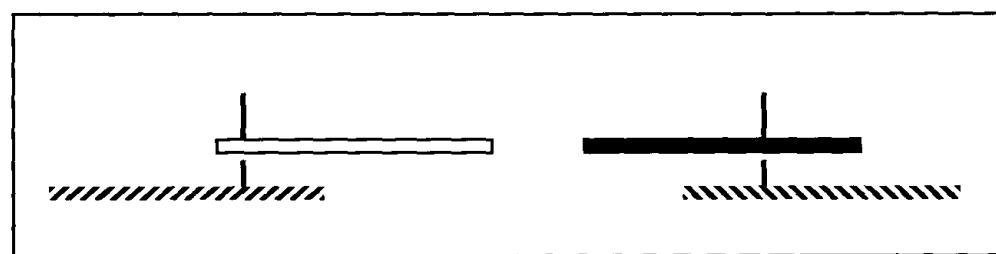
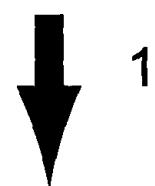


Fig. 11

| | | |
|-----------|------------|----------|
| APPROVED | O. G. FIG. | |
| BY | CLASS | SUBCLASS |
| DRAFTSMAN | | |

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Percent Similarity

| | 1 | 2 | 3 | |
|---|------|------|------|---|
| 1 | | 87.1 | 79.1 | 1 |
| 2 | 13.0 | | 83.3 | 2 |
| 3 | 21.7 | 17.9 | | 3 |
| | 1 | 2 | 3 | |

24DNT-45DO.ISP-L.prot
 2NT-23DO.ISP-L.prot
 NDO-PpG7.ISP-L.prot

Fig. 12A

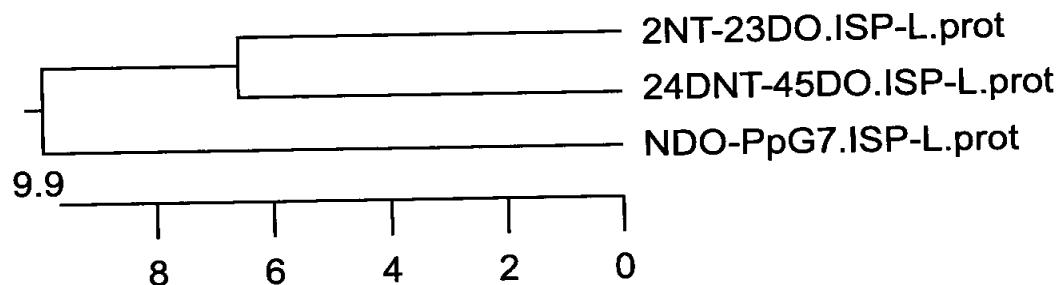


Fig. 12B

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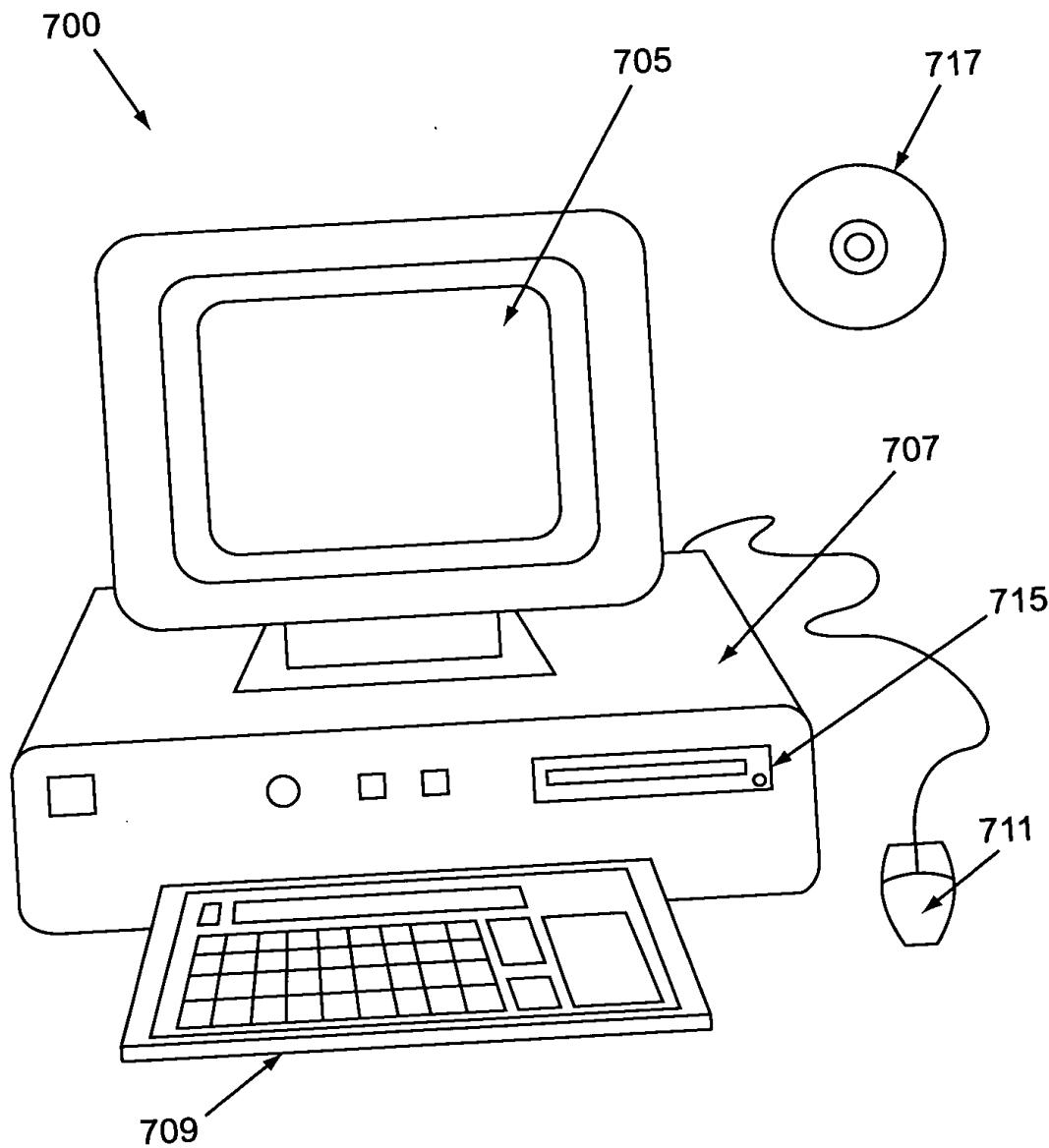
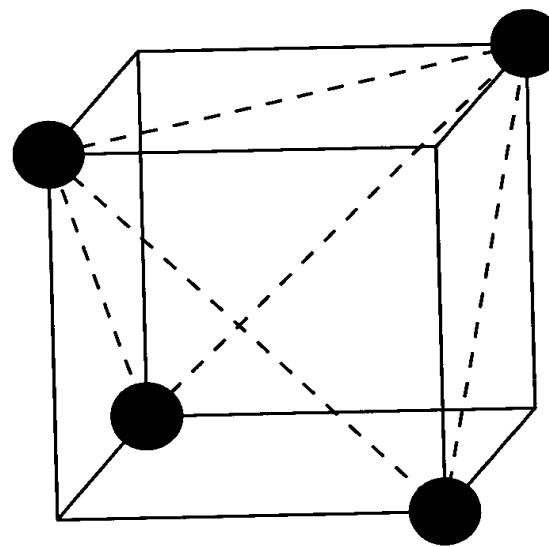


Fig. 13

| | |
|-----------|----------------|
| APPROVED | O. G. FIG. |
| BY | CLASS SUBCLASS |
| DRAFTSMAN | |

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Geometric representation
Equal distance between
each nucleotide

Fig. 14A

| | | | |
|---|----|----|----|
| A | -1 | -1 | +1 |
| C | +1 | -1 | -1 |
| G | -1 | +1 | -1 |
| T | +1 | +1 | +1 |

Numeric representation

Fig. 14B

| | |
|-----------|----------------|
| APPROVED | O. G. FIG. |
| BY | CLASS SUBCLASS |
| DRAFTSMAN | |

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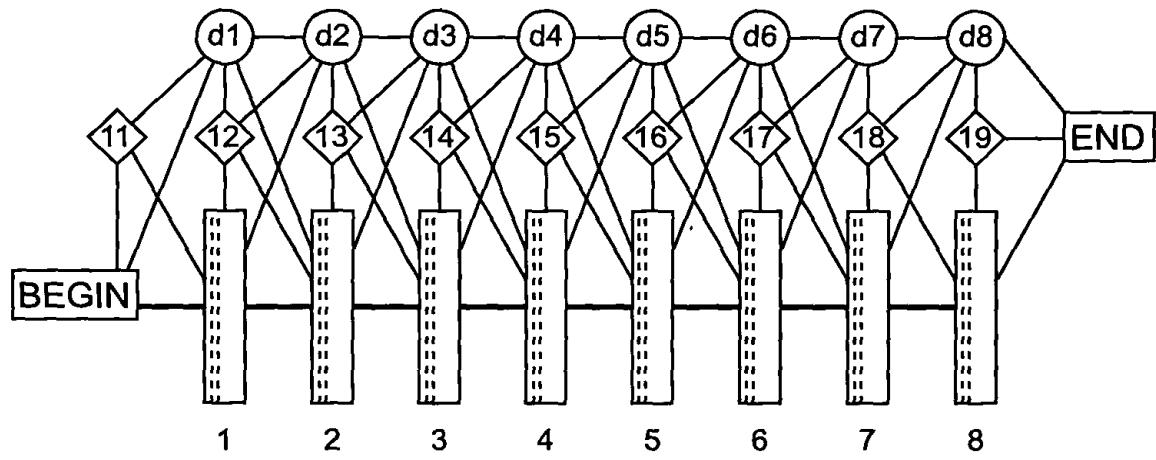


Fig. 15